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10/524,734	09/16/2005	Adele Whish-Wilson	AAR04-GN002	1581

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EXAMINER

SAINT CYR, JEAN D

ART UNIT	PAPER NUMBER
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2623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/524,734

Applicant(s)

WHISH-WILSON ET AL.

Examiner

Jean D. Saintcyr

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-27 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-27 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 16 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)

Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-27, filed 09/16/2005, are presented for examination.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows: Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the

computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim(s) 15-27 are rejected under 35 U. S. C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 15-27 defines a computer program code embodying functional descriptive material. However, the claim does not define a computer readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" - Guidelines Annex

That is, the scope of the presently claimed computer program code can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramasubramanian et al, US Patent No. 6172672.

Re claim 1, Ramasubramanian et al disclose receiving at a receiver (see fig.1A, digital video delivery system) a stream of video data (a stream of digital video data, col.2, line 1) transmitted from a video camera (camera, col.5, line 23);

receiving and monitoring the stream at a server connected to the receiver (Server 102 generally includes a storage device 124 and a video encoder 106. Storage device 124 stores a video file 104. Video encoder 106 encodes video into a digital stream using on-the-fly compression, and therefore includes a video compressor 120, col.3, lines 54-59;that means the stream was monitored at the server in the encoding process)) transmitting the stream from the server to one or more remote viewers(a stream of video is transmitted from the server to the client , col.2, lines 60-61)over a communications network(server 102 and client 110 may both be workstations on a local area network. The present invention is not limited to any particular communication medium or network environment, col.3, lines 64-67); and transmitting a snapshot image to one or more remote viewers in response to the detection of a characteristic in the stream(transmit a snapshot back to the client 110 in response to selection of the camera button, Col.7, lines 24-25).

Re claim 2, Ramasubramanian et al disclose wherein the characteristic is a signal indicating that a snapshot request(see fig.2B, video snap request) has been initiated at the video camera(When a user selects the camera button, processor 122 transmits a message to server 102 to indicate that the camera button was selected, col.5, lines 23-26).

Re claim 3, Ramasubramanian et al wherein the initiation is by actuation of a button on the video camera (The message also includes data that identifies the particular frame displayed in video image 114 when the camera button was selected, col.6, and lines 57-61; that means the button of the camera was activated).

Re claim 13, Ramasubramanian et al disclose further including the step of storing(see fig.1a, element 124, storage device) each transmitted snapshot(snapshot, col.5, line 50) image at a client device of the viewer for retrieval(retrieved video data, col.8, lines 4-5) and viewing(image is being displayed to the viewer, col.2, line 16).

Re claim 14, Ramasubramanian et al disclose wherein the resolution of the snapshot image is higher than the resolution of the frames in the stream (the client 110 will receive a still "snapshot" of the specified frame that has a much higher resolution).

Re claim 15, see rejection on claim 1.

Re claim 16, depending on claim 15, see rejection on claim 2.

Re claim 17, depending on claim 16, see rejection on claim 3.

Re claim 18, depending on claim 15, see rejection on claim 4.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-14 and 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramasubramanian et al in view of Sekiguchi et al, US No. 20010004739.

Re claim 4, Ramasubramanian et al did not disclose wherein the characteristic is an attribute of the visual content of the stream.

In an analogous art, Sekiguchi et al disclose wherein the characteristic is an attribute of the visual content of the stream (the characteristic descriptor set and the attribute list are produced according to the characteristic value description data class and the text information description data class which are common to the plurality of image data base

producing units 1 or the plurality of servers, 0080; that means characteristic is a part of the visual content).

In view of the teaching of Sekiguchi, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to implement wherein the characteristic is an attribute of the visual content of the stream into the of Ramasubramanian. With that option, Users will have the opportunity to know is directly associated with the visual content.

Re claim 5, Ramasubramanian et al did not disclose wherein the attribute is the repletion of a substantially static image.

In an analogous art, Sekiguchi et al disclose wherein the attribute is the repletion(Therefore, the re-retrieval is performed by repeatedly performing the retrieval processing in the step ST37 to step ST41 while using the renewed search priority 241, and the production of the for-retrieval descriptor data and the retrieval processing in the image retrieval processing shown in FIG. 17 is completed, 0296) of a substantially static image(because only static images are processed in the image retrieval, it is difficult to retrieve a desired moving image,0008).

In view of the teaching of Sekiguchi, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to implement wherein the attribute is the repletion of a substantially static image into the system of Ludwig. With such modification, users will be able to recognize that the attribute is a repetition of a lot of segments of static image.

Re claim 6, Ramasubramanian et al fail to disclose wherein the substantially static image is detected by comparing a frame to a plurality of other frames in the stream, wherein the substantially static image is detected when the frame is similar to each of the other frames.

In an analogous art, Sekiguchi et al disclose wherein the substantially static image is detected by comparing (each characteristic descriptor is compared with the threshold values, 0155) a frame to a plurality of other frames in the stream (each video segment, which is composed of a plurality of frames, 0011), wherein the substantially static image is detected when the frame is similar to each of the other frames (similar image with characteristic descriptor sets of the other images, 0149).

In view of the teaching of Sekiguchi, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to implement disclose wherein the substantially static image is detected by comparing a frame to a plurality of other frames in the stream, wherein the substantially static image is detected when the frame is similar to each of the other frames into the system of Ramasubramanian. With such extra option, the system will be able to detecting frames that are similar to other frames by using comparison techniques.

Re claim 7, Ramasubramanian et al disclose wherein the frame was captured by the video camera after each of the other frames (video may be delivered with fewer frames per second, col.1, lines 23-24; that means frame was captured one by one).

Re claim 8, Ramasubramanian et al fail to teach including the frame in the plurality of other frames after it has been compared to the plurality of other frames; and removing a frame from the plurality of other frames.

In an analogous art, Sekiguchi et al disclose including the frame in the plurality of other frames (each video segment, which is composed of a plurality of frames, 0011) after it has been compared to the plurality of other frames (each characteristic descriptor is compared with the threshold values, 0155); and removing a frame from the plurality of other frames (any video shot, which is not proper as a retrieval result candidate, can be removed, 0270).

In view of the teaching of Sekiguchi, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to implement including the frame in the plurality of other frames after it has been compared to the plurality of other frames; and removing a frame from the plurality of other frames into the system of Ramasubramanian. With search extra option, the system will be able to compare frames in a plurality of frames and even capable of removing frames from the plurality of other frames.

Re claim 9, Ramasubramanian et al fail to disclose wherein the frame removed from the plurality of other frames is the earliest frame captured by the video camera.

In an analogous art, Sekiguchi et al disclose wherein the frame removed from the plurality of other frames is the earliest frame captured by the video camera (outputting the piece of attribute information conforming to the first retrieval condition, receiving a second retrieval condition relating to a characteristic descriptor, searching the image information storing unit for one piece of image data conforming to the second retrieval condition and outputting the piece of image data conforming to the second retrieval condition,0012; that means after outputting a piece of image data conforming to the first retrieval condition and that piece of image is removed during the next retrieval condition).

In view of the teaching of Sekiguchi, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to implement wherein the frame removed from the plurality of other frames is the earliest frame captured by the video camera into the system of Ramasubramanian. Such modification will allow the system to remove earliest frame captured by the camera after comparison among the frames.

Re claim 10, Ramasubramanian et al fail to disclose wherein the frame is

determined to be similar to another frame not withstanding differences between the frames, where those differences are within a prescribed difference tolerance.

In an analogous art, Sekigushi et al disclose wherein the frame is determined to be similar to another frame not withstanding differences between the frames(see fig.5, luminance and color difference), where those differences are within a prescribed difference tolerance(see fig.18, degree of reliability; ranking hierarchy, 0188; that means difference in position or location).

In view of the teaching of Sekiguchi, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to implement wherein the frame is determined to be similar to another frame not withstanding differences between the frames, where those differences are within a prescribed difference tolerance into the system of Ramasubramanian. With this modification, the system will become capable to establish difference among the frames according to their tolerance.

Re claim 11, Ramasubramanian et al did not disclose wherein the snapshot image transmitted to the viewer is an average frame calculated from the frame and each of the other frames.

In an analogous art, Sekiguchi et al disclose wherein the snapshot image transmitted to the viewer is an average frame calculated from the frame and each of the other frames (see fig.7, step 15-1, and calculation of average).

In view of the teaching of Sekiguchi, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to implement wherein the snapshot image transmitted to the viewer is an average frame calculated from the frame and each of the other frames into the system of Ramasubramanian. With that extra option, the system will be able to do some calculation to transmit average frames to viewers.

Re claim 12, Ramasubramanian et al fail to disclose comparing the frame to the most recently transmitted snapshot image; and transmitting a further snapshot image only when the frame and the most recently transmitted snapshot image are sufficiently different.

In an analogous art, Sekiguchi et al disclose comparing the frame to the most recently transmitted snapshot image(each characteristic descriptor is compared with the threshold values, 0155); and transmitting a further snapshot image only when the frame and the most recently transmitted snapshot image are sufficiently different(see fig.5, luminance and color difference; that means whenever there are luminance and color difference, the system can determine that snapshot image is sufficiently different).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to implement comparing the frame to the most recently transmitted snapshot image; and transmitting a further snapshot image only when the frame and the most recently transmitted snapshot image are sufficiently different into the system of Ramasubramanian. By using comparison technique, the system will be able to recognize easily sufficiently different snapshot.

Re claim 18, depending on claim 15, see rejection on claim 4.

Re claim 19, depending on claim 18, see rejection on claim 5.

Re claim 20, depending on claim 19, see rejection on claim 6.

Re claim 21, depending on claim 20, see rejection on claim 7.

Re claim 22, depending on claim 21, see rejection on claim 8.

Re claim 23, depending on claim 22, see rejection on claim 9.

Re claim 24, depending on claim 20, see rejection on claim 10.

Re claim 25, depending on claim 20, see rejection on claim 11.

Re claim 26, depending on claim 15, see rejection on claim 13.


Re claim 27, depending on claim 15, see rejection on claim 14.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boyken et al (US. Pat. 6124862) disclose a method and an apparatus for generating virtual views of sporting events.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST. If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reached on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, dial 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jean Duclos Saintcyr
01/28/2008


Brian Pendleton
Supervisor Patent Examiner